Abstract

A system, a method and a component using thermally stimulatable substances for the temperature measurement of thermal barrier coatings are provided. The a thermal barrier coating comprises a stimulatable substance as high-lighter and a substance to adhere the thermal stimulatable substance in the coating. The stimulatable substance having emission lines which vary in response to a temperature of a coated component. For example, the present invention can be used in combustion turbines or combustion machines.